DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 13.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-011897
Date Inspected: 08-Feb-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Oregon Iron Works Clackamas, Or.

OSM Arrival Time: 1000
OSM Departure Time: 1630
Location: Clackamas, OR

CWI Name:	M. Gregson, J. Salazar, G. Mundt			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☐ Yes	☐ No	☑ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Hinge K Pipe Beams

Summary of Items Observed:

The Quality Assurance Inspector Sean Vance arrived on site at Oregon Iron Works, Inc (OIW) in Clackamas, OR, to randomly observe the in process welding of the Hinge K Pipe Beam assemblies. The QA Inspector arrived on site to randomly observe the OIW Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector the following observations were made:

OIW Fabrication Shop-Bay 6 (ESW Overlay Process)
Hinge-K Pipe Beam Fuse Assembly 120A-8
The QA Inspector witnessed welder WID #F17, Mr. Igor Frolov, performing electro slag welding (ESW) on the fourth layer welding passes, in the flat position. The QA Inspector noted that the fourth layer pass was now approximately 30% complete and Soudokay brand Soudotape 316L stainless steel consumable strip, was being utilized. The QA Inspector randomly noticed QC Inspector Jose' Salazar was present, to verify in-process welding parameters (amps/volts) and monitor in-process continuous pre-heat temperatures. QC Inspector Salazar explained to the QA Inspector that welding amperage was previously recorded at 1300 amps/25.8 volts, travel speed at 265mm/min. and a pre-heat temperature recorded at approximately 150 degrees Fahrenheit (66 C). The QA Inspector verified the welding parameters and the minimum pre-heat temperatures were in compliance with the applicable WPS 7003. The QA Inspector verified Mr. Igor Frolov was currently qualified for this welding process and position. The QA Inspector noted that the ESW being performed appeared to be in compliance with WPS 7003. See attached picture below.

Hinge-K Pipe Beam Assembly 102A-3
a111-3 Forging to a110-3 Base Plate

WELDING INSPECTION REPORT

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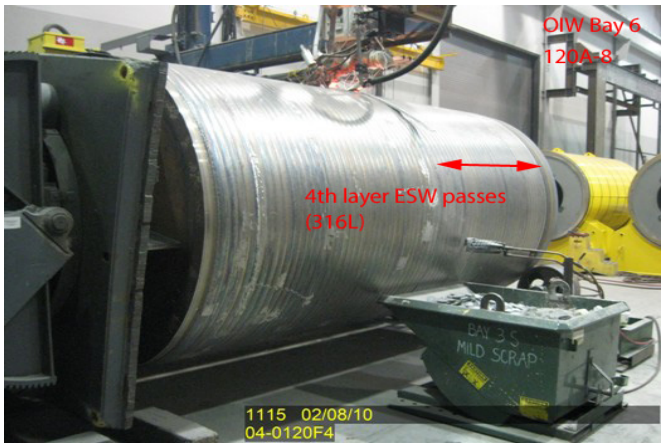
The QA Inspector was informed by OIW QC Inspector Jose' Salazar that WID #O6 (Tim O'Brian), was continuing the grinding on CWR's#2244-009 thru 021. QC Inspector Salazar explained that was currently grinding on the repair areas. The QA Inspector noted that that the grinding was being performed to smooth out and blend the areas and then he will visually inspect the areas, per AWS D1.5 visual acceptance criteria. QC Inspector Salazar explained that after the grinding and visual inspection is acceptable, preliminary magnetic particle testing will be performed. QC Inspector explained that final magnetic particle testing will be performed after a minimum of 48hrs, per the CWR Specific Instructions and AWS D1.5, sect. 12.16.4. See attached picture below.

Material, Equipment, and Labor Tracking (MELT)
QA Inspector Sean Vance performed a verification of material, personnel and equipment involved with the project. The QA Inspector observed at Oregon Iron Works: 3 OIW production personnel and 2 QC Inspectors.



Summary of Conversations:
As noted above.
Comments
This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Vance,Sean	Quality Assurance Inspector
Reviewed By:	Adame,Joe	QA Reviewer